

The Kawaiwete pedagogical grammar: Linguistic theory, collaborative language documentation, and the production of pedagogical materials

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This paper describes the intersection between linguistic theory and collaborative language documentation as a fundamental step in developing pedagogical materials for Indigenous communities. More specifically, we discuss the process of writing a monolingual pedagogical grammar of the Kawaiwete language (a Brazilian Indigenous language). This material was intended to motivate L1 speakers of Kawaiwete to think about language as researchers: by exploring linguistic datasets through the production and revision of hypotheses, testing predictions empirically and assessing the consistency of hypotheses through logical reasoning. By means of linguistic workshops in Kawaiwete communities, linguistic training of Indigenous researchers and production of pedagogical materials, we intended to motivate younger generations of Kawaiwete speakers to become researchers of their own language.

1. INTRODUCTION.¹ This paper describes a community-collaborative project of language documentation of the Kawaiwete language and the products of this project; most importantly, it describes the monolingual pedagogical grammar of the language. The Kawaiwete language (also known as Kaiabi/Kayabi) is spoken by the Kawaiwete people, who number around 2000. Most of the population lives in the multilingual and multicultural Xingu Indigenous Territory, which is a territory protected by the Fundação Nacional do Índio (National Indian Foundation, FUNAI).²

A smaller part of the population lives outside of the Xingu territory in smaller communities located in the Mato Grosso state (Indigenous territory Apiaká-Kayabi, Indigenous territory Cayabi and Indigenous territory Cayabi Gleba Sul). While the majority of the Kawaiwete population lives in Xingu, this is not their traditional territory. In 1949, most of the population lived close to the Teles Pires River and a smaller group lived close to the Peixes River in the region known today as Tatuy (Souza 2004: 13).

¹ I would like to thank the Kawaiwete communities in Xingu, in particular the teachers Aturi Kaiabi, Montirenti Kaiabi and Pikuruk Kayabi. I am also thankful to Bruna Franchetto, José Carlos Levinho, Mara Santos and Luiz Amaral. I would also like to thank the Instituto Socioambiental (ISA) for their logistical support on several occasions. Finally, I would to thank the editors of this volume, Katherine Riestenberg and Wilson Silva. All usual disclaimers apply.

² The Kawaiwete are the most numerous Indigenous people in the Xingu territory. They number around 1193, followed by the Kuikuro people, who number around 522 people (Ipeax 2011, Unifesp 2010, Funai 2003 *apud* Almanaque Socioambiental Parque Indígena do Xingu: 50 anos).

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ISBN: 978-0-9973295-8-2

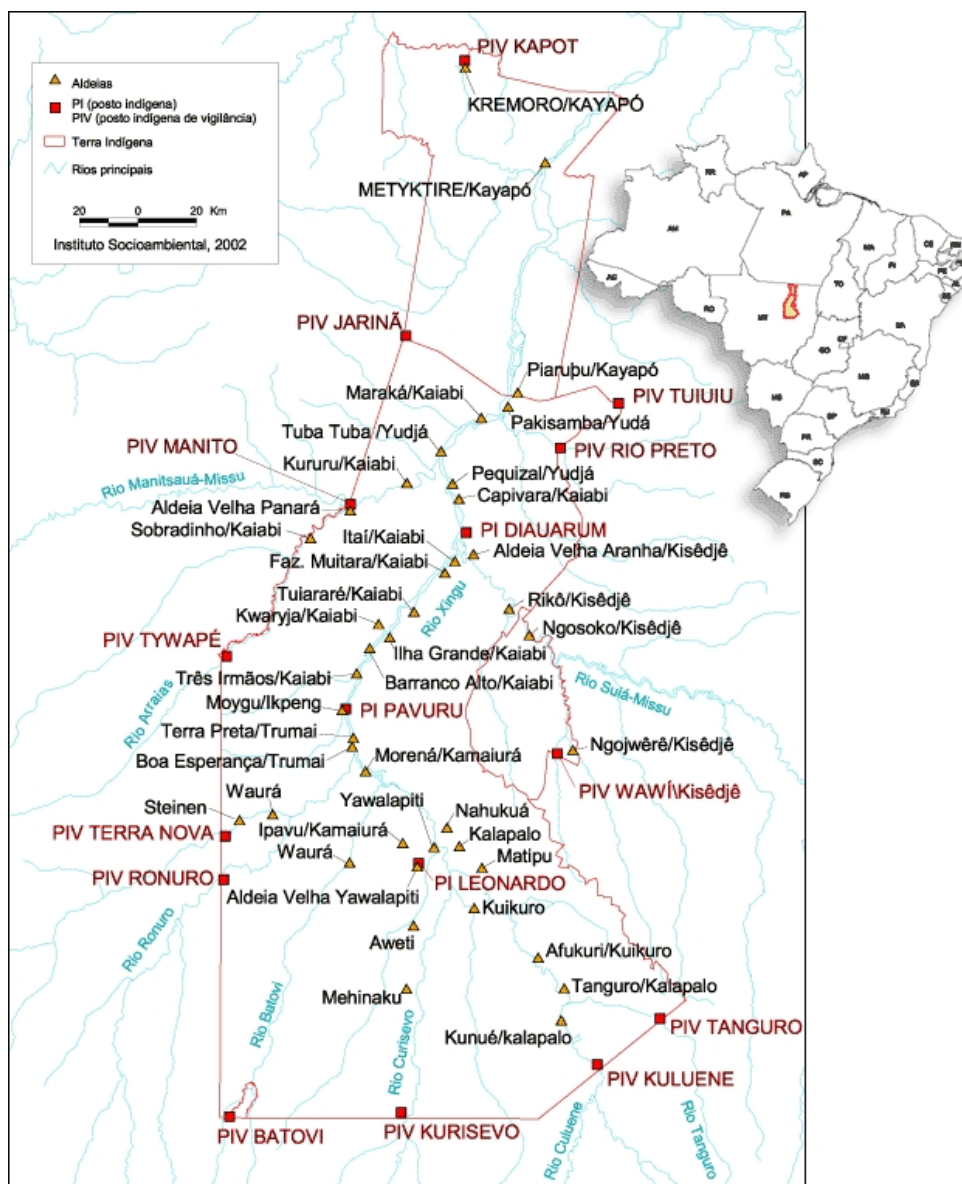


FIGURE 1. Xingu Indigenous Territory, Instituto Socioambiental/ISA, 2002 (Villas-Boas et al. 2002).

Due to several fatal conflicts with rubber tappers and land explorers interested in stimulating agribusiness in central Brazil, the Kawaiwete were gradually transferred by plane from their traditional land to the Xingu Indigenous Territory in 1966, in order to avoid further fatal conflicts (by gunfire and diseases spread by invaders).

Unsurprisingly, this process of transferring part of the Kawaiwete population to a multilingual, new territory complicated the linguistic history of the Kawaiwete people, due to the intense exposure to Brazilian Portuguese and other Brazilian Indigenous languages. Currently, most Kawaiwete who do not reside in the Xingu Indigenous Territory do not speak the Kawaiwete language. That is because the Kawaiwete residing outside of the Xingu area are much more susceptible, in comparison those in the Xingu

Indigenous territory, to contact with Brazilian Portuguese.³ One example of a Kawaiwete territory outside Xingu is the community located close to the city Juara (Mato Grosso). A preliminary language vitality questionnaire in the region with 83 people who live there (out of a total of 300 people) showed that the proportion of speakers within the total population in the area is small (nine out of 83 interviewees); a total of seven people (out of 83 interviewees) report that they understand but do not speak Kawaiwete. All interviewees reported, however, that they would be interested in revitalizing the language in the area. Efforts towards this goal are being discussed (as part of a collaborative project between the author and members of the community).

The Kawaiwete language belongs to the Tupi-Guarani family, Tupi stock. The Tupi-Guarani family is divided into eight subgroups (Rodrigues 1986).

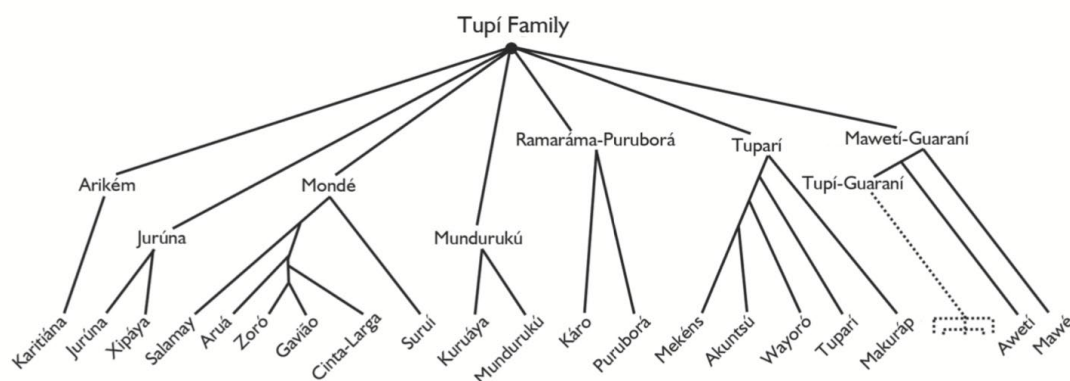


FIGURE 2. Proto-Tupi (figure provided by Comparative Tupi Project) (Galucio, Meira, Birchall, Moore, Gabas Júnior, Drude, Picanço, & Rodrigues 2015: 230).

Missionaries and academic linguists have conducted a few studies on Kawaiwete. Missionaries have described the phonology and morphosyntax of this language (Dobson 1980, 1997, 2005), produced a dictionary (Weiss 1998), and compiled mythological narratives (Dobson 1990). Academic linguists have described and analyzed aspects of the phonology (Souza 2004) and morphosyntactic and semantic aspects of the Kawaiwete language, such as its pronominal system (Souza 2004), its word order and the status second position clitics (Faria 2004; Gomes 2002), the grammaticalization of the count/mass distinction in the language (Lima & Kayabi 2015) and recursion of complex structures (Lima & Kayabi 2018).⁴

The development of the Kawaiwete language documentation project was strongly motivated by Kawaiwete Indigenous teachers' interest in exploring strategies for language maintenance and revitalization. In 2009, prior to the beginning of the project, a language vitality survey was done with 552 Kawaiwete persons interviewed in nine different villages in the Xingu Indigenous territory (Lima & Santos 2008). The results suggested that in the Xinguanian Kawaiwete villages, most of the children were

³ Brazil has two official languages: Brazilian Portuguese and Brazilian Sign language (LIBRAS) (Libras since 2002, Law 10.436, April 24, 2002). A few Brazilian languages are co-official in some municipalities of the country (Nheengatu, Baniwa, Tukano, Guarani, Xerente, Macuxi and Wapichana) (Machado 2016: 58).

⁴ See also Lima (2009) for an annotated bibliography of materials written about the Kawaiwete language and culture in the fields of Anthropology and Linguistics.

monolingual (L1, Kawaiwete). In most villages, adults use both Kawaiwete and Portuguese in their households and daily activities; the interviewees indicated that Kawaiwete was used more frequently than Portuguese, especially when they interacted with a senior member of the community.

The Kawaiwete Indigenous teachers answered an extended version of the survey that included questions about language maintenance, variation and teaching. In their answers, the Kawaiwete teachers raised a few concerns and questions that were later discussed in a series of linguistic workshops in the villages. First, the Kawaiwete teachers reported their interest in discussing and better understanding language variation across different villages, as they were aware that this was impacting the Kawaiwete language classes. Second, the Kawaiwete teachers reported the existence of variation in the writing of some words and manifested an interest in unifying the writing of the Kawaiwete language. Finally, the Kawaiwete teachers reported as a critical problem the absence of materials for language teaching in schools. This initial language vitality and pedagogical assessment was critical for the early steps in working with the Kawaiwete, as we discuss in more detail in Section 2.

2. DOCUMENTATION OF THE KAWAIWETE LANGUAGE. Between 2009 and 2012, the Kawaiwete language was the focus of a language documentation project promoted by the Indigenous Museum (Museu do Índio/FUNAI) under the Program of Language Documentation, ProDocLin.⁵ The activities developed by the ProDocLin Kawaiwete included i) mentorship of Indigenous researchers (in linguistics and language documentation methods), ii) preparation of a descriptive grammar, a dictionary and reading books and iii) linguistic workshops in the communities. We describe these activities here.

Training of Indigenous researchers

As part of the Kawaiwete language documentation project, two Indigenous teachers – Aturi Kaiabi and Pikuruk Kayabi – received training in language documentation techniques. They learned how to record and label their recordings (metadata) and to transcribe data in the program Transcriber.⁶ Furthermore, they received training in different types of research methods in linguistics, including how to build paradigms, how to identify minimal pairs and how to collect data by means of using controlled contexts (supported by verbal and visual stimuli).

Workshops in the communities

A total of four workshops were held in Kawaiwete villages in the Xingu Indigenous Territory.⁷ While the primary target group of participants in these workshops was the

⁵ The ProDocLin program (financially supported by the Brazilian government and administrated by the United Nations [UNESCO]) was characterized by not only supporting the documentation of different genres of speech and providing the resources needed for this type of work (video camera, voice recording, laptops), but crucially by supporting the training of Indigenous researchers in the field of language documentation. A total of 25 Indigenous researchers were trained during the first 13 projects funded by ProDocLin (Franchetto & Rice 2014).

⁶ <http://trans.sourceforge.net/en/presentation.php>

⁷ The first three were also supported by the Socioambiental Institute (ISA), a non-governmental organization that works closely with the Indigenous peoples who live in the Xingu territory.

Kawaiwete teachers, the workshops were open to all members of the communities. Each of the four workshops focused on different activities, detailed as follows:

Workshop 1: The Kawaiwete orthography and language variation.

In the language vitality survey, the Kawaiwete teachers had voiced their questions about language variation. In the workshop, after the presentation of concepts from sociolinguistics, groups of Kawaiwete teachers from different Kawaiwete villages in the Xingu Indigenous Territory identified examples of language variation according to different criteria (different geographic areas, gender, context of speech and age). For example, Souza (2004: 18) notes that some Kawaiwete dialects in Xingu (such as the one spoken in the Capivara community) are known for presenting more nasal spreading and nasal vowels in words that do not include nasal vowels/nasal spreading in other dialects. According to Souza (2004), this might be a consequence of two different sources of immigration of the Kawaiwete to the Xingu Indigenous territory: the speech community that presents an accentuated nasalization are in the majority immigrants from the Tatuy region; speakers that do not present this pattern are predominantly immigrants from the Teles Pires River area.

In another activity, the Kawaiwete teachers listed examples of words that presented variation in their orthography. Two main factors could contribute to the variation in writing: the absence of a dictionary and of other documents that list the orthographic agreements for consultation in the communities⁸ and the relative young life of the orthography (and therefore its consolidation in progress at the time). Kawaiwete teachers reported that early developments of the current Kawaiwete orthography date from the early 1990s. First, the Xinguanian Kawaiwete teachers worked with anthropologist Mariana Kawall Leal Ferreira on the development of a new orthography, intended to replace the orthography proposed by missionaries from the Summer Institute of Linguistics (SIL). Then, the Kawaiwete teachers worked with linguist Lucy Seki in order to further improve their orthography system (cf. Souza 2004: 55). The current orthography is mostly based on the work of Kawaiwete teachers with Lucy Seki.

During the workshop, after a discussion about the story of the development of the Kawaiwete orthography, the Kawaiwete teachers worked in groups and provided examples of words whose spelling varied across different communities. Based on these examples, we observed five common patterns. Then, we discussed these patterns based on concepts of different fields of linguistic theory and established agreement on the spelling of the words in variation. Table 1 summarizes the five patterns and the agreement established with the Kawaiwete communities.

TABLE 1. Variation in the Kawaiwete orthography

Phenomenon	Linguistic discussion	Strategy
Variation in the use of <i>m</i> and <i>n</i> .	A preliminary discussion of the properties of nasal consonants was provided. More particularly, we discussed the differences in the place of articulation	After a few exercises with the words that motivated the discussion, the Kawaiwete teachers observed a difference between words where the nasal was pronounced with the lips (<i>m</i>) and those that were not (<i>n</i>). An agreement on the words in variation (in the written language)

⁸ Weiss (1998) produced a dictionary of the language as part of her PhD work in linguistics at the University of São Paulo. Weiss's dissertation is available for consultation at the University of São Paulo libraries.

	between bilabial (m) and alveolar nasals (n).	was established based on the pronunciation of the words.
Glottal stop	We overviewed the phonetic characteristics of the glottal stop.	Exercises using minimal pairs were completed in order to emphasize the difference between words with and without the glottal (<i>a'y</i> 'a type of monkey'; <i>ay</i> 'pain').
The use of <i>u</i> and <i>w</i>	We discussed the difference between vowels and diphthongs based on phonetic concepts.	After a few exercises, the Kawaiwete teachers observed that <i>w</i> was only suitable when the 'u' sound was weaker (part of a diphthong), while <i>u</i> would be used to pronounce an independent vowel. Example: <i>erawaw</i> 'to take' and <i>jau</i> 'left'.
The use of <i>u</i> and <i>o</i>	The articulatory features of the vowels (close/close-mid) was used as a strategy to show the difference between the two sounds.	After a few exercises, the Kawaiwete teachers made a few compromises on which words they thought would be better represented as <i>o</i> or as <i>u</i> , despite variation in oral speech. In the workshop it was noted, based on several examples, that variation in oral speech was common across languages.
Long and short vowels	The distinction between short and long vowels was discussed based on phonological concepts and examples in Kawaiwete and other languages.	Exercises with minimal pairs were used to show the difference in the pronunciation of words with short and long vowels (<i>nakwawi</i> 'not pass' and <i>nakwaawi</i> 'not know'). Agreement on the words in variation (in the written language) was established.
Separation of words	Discussion of morphological concepts (bound and root morphemes).	It was established that bound morphemes would be written together with their root morphemes. We did exercises where we discussed strategies for deciding whether a particular morpheme was bound or independent. The exercises were based on two questions: (i) Can a particular morpheme occur by itself? And (ii) can a morpheme intervene between two other morphemes?

In sum, in this workshop, the participants were introduced to concepts of linguistics to explain why and how languages vary and how to build hypotheses based on datasets. One goal of this workshop was to emphasize not only the concepts, but also the methods for finding patterns and building hypotheses. The Kawaiwete teachers were encouraged to do similar exercises in their classrooms. It is important to say that at the time of the workshop (2009), most of the Kawaiwete Indigenous teachers had not been exposed to linguistics in their training to become teachers. As such, this workshop was a useful tool for teachers, complementing their previous education and in-class experience as language teachers. At the end of the workshop, we wrote a bilingual text about the history of the Kawaiwete orthography, the orthography itself (with its parallel in the International Phonetic Alphabet) and the agreement we came to on how to write the

words in variation, as the Kawaiwete manifested interest in unifying their writing system.⁹

Workshops 2 and 3: Genres of writing

As per the request of the communities, the second and third workshops (2010, 2011) were intended to promote different genres of writing in Kawaiwete (autobiographies, comic strips, texts for authorities [argumentative]). The results of this effort were two bilingual books, one of which has already been published by the Museu do Índio. This book *Yafu: o retorno do chocalho* (Yafu: the return of the rattle) (Lima 2015) includes the transcription and translation of 27 songs of the traditional ritual *Yafu*.

Workshop 4: Revitalization of Kawaiwete ceramics

The last workshop was an effort to facilitate the process of revitalizing the knowledge behind the production of the Kawaiwete ceramics. While this was not a workshop oriented to linguistics *per se*, the enhancement of traditional cultural practices is a strategy to stimulate the use of an Indigenous language (Hinton 1992: 6). Until then, only two senior women knew how to make traditional ceramics (pans). During the workshop, using only Kawaiwete in their interactions, one of these senior women worked directly with teens and young adult Kawaiwete women on all steps of preparing Kawaiwete ceramic pans. After the workshop, the Kawaiwete researchers reported that some of the younger women in different Kawaiwete communities started making ceramic pans as well. Another result of this initiative were two documentaries on the process of doing this type of work, the history of ceramics and their use in the community, which was directed by Aturi and Pikuruk Kayabi.¹⁰

Overall, the ProDocLin project resulted in 40 hours of audio and video recordings, a bilingual dictionary (1500 entries, in progress), a descriptive grammar (written in Portuguese) and two reading books (one of them was published, Lima 2015). These three initial years of the ProDocLin project were an essential stage for initiating an extensive documentation of the language that was later critical in developing the pedagogical grammar, as described in the next section.

3. THE KAWAIWETE PEDAGOGICAL GRAMMAR. Between 2013 and 2015, a monolingual pedagogical grammar of the Kawaiwete language was written in collaboration with the Kawaiwete teachers. The Kawaiwete pedagogical grammar was one of the projects under the program ‘Pedagogical grammars’ of the Project for the Documentation of Indigenous Languages (ProDocLin), Museu do Índio/United Nations (UNESCO).¹¹ This is a monolingual (Kawaiwete) grammar with illustrations by one of the Indigenous co-authors (Montirenti Kayabi). It was written between 2013 and 2015

⁹ The introduction of the Pedagogical Grammar of the Kawaiwete language (described in Section 3) includes the texts written during this workshop as well as an overview of sociolinguistics terminology and how it can be applied to the examples discussed in the workshop.

¹⁰ Both movies (with English subtitles) are available online:

Japepo 'Yja Pa'ruap (<https://www.youtube.com/watch?v=Cs7TUKA2240>, 16:30 minutes) and *Japepo* (<https://www.youtube.com/watch?v=wJcuCdiz8wE>, 20:08 minutes).

¹¹ Luiz Amaral (University of Massachusetts Amherst) was the technical coordinator of this program, which he designed. Luiz provided training on the method for developing this type of material and supervised the production of the grammars. The Scientific Coordinator of ProDocLin was Bruna Franchetto (Universidade Federal do Rio de Janeiro, Museu Nacional).

and consists of a book of 50 chapters (approximately 400 pages) written in collaboration with three Kawaiwete teachers (Pikuruk Kayabi, Montirenti Kayabi & Aturi Kaiabi), see Lima et al. *in press*.

A pedagogical grammar is non-technical, monolingual material, driven by communicative goals.¹² The critical concept behind the structure of the chapters of the pedagogy is *input enhancement*. Input enhancement is a pedagogical strategy of making more salient a specific grammatical feature in order to gain the attention of the L2 learner (Sharwood Smith 1991: 120). Strategies of input enhancement include making a particular form typographically salient by underlining it, bolding it and/or using varying color or font. Another form of input enhancement, known as *input flood* (Barcroft & Wong 2013), consists of the presentation of several instances of a particular target structure in order to make salient to the learner regularities of the input without the use of formal language (Rutherford & Sharwood Smith 1985).

The Kawaiwete pedagogical grammar was divided into five thematic groups, as described below. The grammar was not intended to be a comprehensive description of all aspects described in previous work on the language; most of them were aspects of the language's grammar featured in the descriptive grammar, written in the first three years of the project (Lima, Kaiabi & Kayabi 2012):

- *Group 1: language variation and history of the orthography* (the only bilingual section of the grammar; this part of the grammar includes the material written in the first linguistics workshop promoted under the ProDocLin project; see Section 1).
- *Group 2 (10 units): objects, people and substances* (pronouns, possessives, adjectives, compounding, derivational morphology [formation of nouns], augmentative and diminutive morphemes, and the generic morpheme).
- *Group 3 (10 units): time and space* (demonstratives, postpositions).
- *Group 4 (10 units): counting and measuring* (numerals, quantifiers, comparatives, pseudopartitives)
- *Group 5 (20 units): daily activities* (adverbs, different types of sentence connectives, questions, negation, causatives, reciprocals, imperatives, modals, conjunctions).

The chapters do not have to be used in a particular order; as such, the use of the pedagogical grammar could vary depending on the contents being explored in other classes. One characteristic of the grammar is the absence of technical terms in the chapters, as we discuss in more detail in 3.2.

3.2 STRUCTURE OF THE CHAPTERS. All 50 units of the pedagogical grammar of the Kawaiwete language have the same structure: they start with the contextualization of the form being studied in the chapter by means of presentation of a dialogue or a small narrative, as illustrated in Excerpts 3 and 4. The target structure of each chapter is made visually salient by the use of red and bold fonts in the title of the chapter, the contextualization and the description of the use of the form.

¹² See Silva, Amaral & Maia (2014) for a discussion of the general goals of the program in which the grammars were written and of the production of the pedagogical grammar of the Karajá language.

EXCERPT 1: Contextualization picture (Chapter *Natuwi te nipyituni* ‘small and few’)

— *Ma’a pe te tapi’ira erejuka ra’e?*
(‘Where did you kill the tapir?’)

— *Ypia pe je ijukai ko.* (‘I killed the tapir in the lake.’)

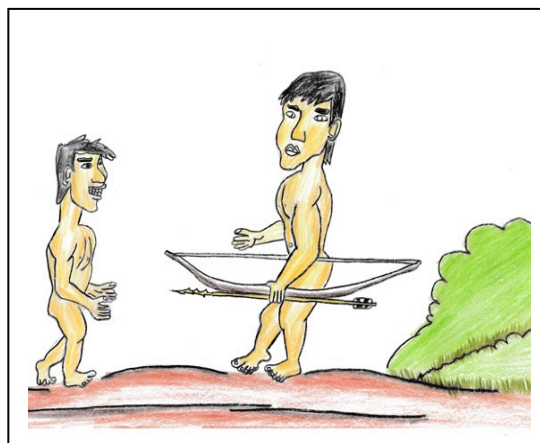
— *Natuwi te ‘nga nũ’ũ?* (‘Was it small [*natuwi*]?’)

— *Natuwi kuĩ.* (‘Yes, it was small.’)

— *Tajaua oko ‘jaw ‘ngã ũ?* (‘I heard that there are not many tapirs there, is that true?’)

— *Ēē! A’ere nipyituni. Mukujã etee ajuereko ko.* (‘Yes, there were few [*nipyituni*] tapirs there. I only saw two.’)

— *Jaw ene kuĩ.* (‘Is that so?’)

**EXCERPT 2:** Contextualization (Chapter *‘Nga, ēē, kĩa, kynã: ‘nga ujãn, ēē ujãn, kĩa ujãn, kynã ujãn.* ‘he, she, he, she: he runs, she runs, he runs, she runs’)

These exercises illustrate the contextualization portion of two chapters of the grammar. Excerpt 1 is from the chapter on how to describe negative sizes and quantities (*Natuwi te nipyuni* ‘small and few’), while Excerpt 2 is about third person pronouns that vary according to the gender of the speaker and hearer. In most chapters, as in these examples, we use the contrast between two forms in order to explain their meaning and use. That is, we include two or more forms that shared at least one property and, at the same time, differed from each other in at least one way. For example, *natuwi* and *nipyuni* are both negative words; they are different in the sense that one (*natuwi*) is an adjective that describes small sizes of individuals, while the other (*nipyuni*) is a negative quantifier that quantifies over cardinalities.

The contextualization of use of the form(s) being studied in the grammar is followed by a non-technical description of the use of the target morpheme/structure. In all chapters, non-technical descriptions are introduced in blue boxes (as shown in Excerpt 3 and 4):

EXCERPT 3: Non-technical description (chapter: *Natuwi te nipyuni* ‘small and few’)

Natuwi ‘jawa upe ae’i mamu’e tuwie’emã upe. **Nipyuni** ‘jawa upe ae’i mama’e pytune’emã upe ae’i.
(‘*Natuwi* is used to talk about a small object. *Nipyuni* is used to talk about a small quantity of objects’)

Nipyuni ‘jawa upe ae’i mama’e epytune’emã upe a’ei. Naparu’ia mama’e ku’iu pe.
(‘*Nipyuni* cannot be used to refer to substances or masses’)

I’jawe (‘Example:’): ~~*nipyuni* u’i upe~~ (‘~~there are few flour~~’)
☺ **nipyuni** sakua u’i upe (‘there are few bags of flour’)

In the non-technical description of the target structures throughout the grammar, we highlight specific subtle semantic aspects of the use of the terms. For example, in the exercise in Excerpt 1, we emphasize that *nipyuni* is a quantifier that cannot be combined directly with substance-denoting nouns such as *u’i* ‘flour’. Previous work had already described that some quantifiers can only be directly combined with count nouns (for example, object-denoting nouns such as *chair*); as such, the distribution of quantifiers is a reliable test in order to distinguish count from mass nouns in Kawaiwete (Lima & Kayabi 2015).

In this particular chapter, we present positive and negative evidence for describing the distribution of *nipyuni*. That is, we show when it can and cannot be used by discussing that mass nouns cannot be directly combined with the quantifier *nipyuni*. While we are aware that the use of negative evidence is controversial in pedagogical materials for L2 speakers (as it could draw the student’s attention to ungrammatical sentences and lead the students to mistakes), we considered that in material for L1 speakers this was not problematic given that they already know intuitively what is possible and what is impossible. Instead of being a potential problematic strategy, we decided that it was important to present negative and positive evidence as this is at the core of linguistic data analysis. It is important to say that no material written in or about in Kawaiwete has a prescriptive nature and the type of negative evidence featured in

the pedagogical grammar only includes what is impossible for *any* Kawaiwete speaker. When relevant, the chapters include a note about the variation in the use of different forms depending on the gender of the speakers/hearer:

EXCERPT 4: Non-technical description (chapter: 'Nga, êê, kĩa, kynã: 'nga ujãn, êê ujãn, kĩa ujãn, kynã ujan. 'he, she, he, she: he runs, she runs, he runs, she runs').

Jane je'engimũ jane anga jareje'enga paru'i 'nga, êê, kĩa, kynã 'ngã nera py'raw. (Esak: kuima'e 'nga) 'nga rera moyka a'emũ akwaapawa yramũ awyjjã upe jane 'jaw.

(‘In our language we use the words ‘nga, êê, kĩa, kynã after a noun (for example: *kuima'e nga* [man third person singular]) in order to complement the meaning of the phrase’).

A oo tee ae je'enga mama'e mame'waw. Pee sak kuima'ea, kujãa 'jaw.

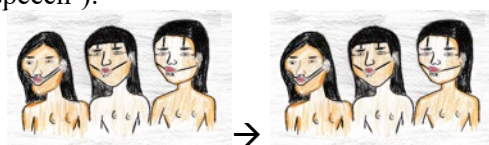
(‘The differences between male and female speech’):



Kuima'ea oje'enga ajaupe:
(‘Men referring to other men’)
'nga



Kuima'e jenga kujã upe:
(‘Men referring to women’)
ê/êê



Kujã aje'enga ajaupe:
(‘Women referring to other women’)
kynã





Kujã jenga kuima'e upe:
(women referring to men)
kĩa

In this unit, we focus on the use of pronominal forms after nouns. In Kawaiwete, nouns in argument position are either followed by the suffix *-a* (this morpheme is explored in a different chapter of the grammar) or by a pronominal form, as in the examples of this unit. A literal translation of sentences that include the pronominal form is provided. *Pitaja 'nga ujãn* is, for example, ‘Pitai, he ran’. It is important to note that this is not the only use of pronominal forms in Kawaiwete, but this was the particular use that the Kawaiwete teachers wanted to explore in class with the L1 speakers of the language. This unit also features a table contrasting male and female speech.

The process of writing the contextualization and non-technical description of the target structures involved conversations about the uses of the target structure, based on examples created by the authors (in dialogues, narratives, etc.) and based on the

previous description of the target form featured in the descriptive grammar (Lima, Kaiabi, & Kayabi 2012).

3.3 EXERCISES. Each chapter of the grammar includes four to five exercises. All units have the same structure: the first exercises are always more controlled tasks than the last exercises of each unit. Examples of more controlled tasks include exercises of the following types: answer questions based on context, filling gaps, transforming phrases (by changing their word order, adding or removing a morpheme and performing necessary adaptations), word puzzles (word search, connecting words and their meanings), and forced-choice tasks (where readers would have to choose between two op-

	<i>Tuiat wesak</i> (‘Tuiat saw it’)	<i>Tuiat nuesagi</i> (‘Tuiat didn’t see it’)
		
<i>Pinaa Aturia amut ko.</i> (‘Aturi bought fish hooks’)	<i>ẽẽ</i> (‘yes’)	
a. <i>Eira Aturia a’u ra’e.</i> (‘Aturi drank honey’)		
b. <i>Piraa Aturi ‘nga ajuka ko.</i> (‘Aturi killed the fish’)		
c. <i>Aturi ‘nga ‘ywa amangai ra’e</i> (‘Aturi cut a piece of wood’)		
d. <i>Weymawa Aturi ‘nga wejat ko</i> (‘Aturi abandoned his pet’)		
e. <i>Ai’iwetewe nipoa’e Aturi ‘nga tapi’ira jukai ra’e.</i> (‘Aturi killed a tapir early in the morning’)		
f. <i>Kujãmera upe Aturi ‘nga maraka ra’angi ko.</i> (‘Aturi sang songs to the women’)		
g. <i>Aturi ‘nga weayrũa amaka’jam ra’e.</i> (‘Aturi forgot his glasses’)		

tions). The exercises always include one sample answer, highlighted in blue (identified in the examples below as *i’jawe*). Examples of the controlled exercises are presented in Excerpt 5 through 10 below:

EXCEPT 5: Controlled exercise, binary forced-choice task (Chapter on the tense/evidential morphemes *ko* [visual evidence] and *ra’e* [non-visual evidence])

Tuiara ‘nga amame’u morongyta’ia mama’ea ae ‘wyripe wara. Emome’u ikwasiaa “ẽẽ” maranamũ “nani” tuiara ‘nga je nga.

(‘Tuiat will describe a few things that happened in the community. Answer ‘yes’ if he saw what happened. Answer ‘no’ if he didn’t see what happened’)

EXCEPT 6: Controlled exercise, transformation of sentence (Chapter on the imperative construction *kasi ne*)

Kunumiakyra mama'ea wopo ajemongyaw, a'eramũ morea peapoawi 'jaw jupe, pepaoat Morea mama'ea paw kare'emã kunumĩ upe.

(‘The children are doing things and Morea wants them to do the opposite. Help Morea to order children to do the opposite of what they are doing’)

I'jawe: *Kunumĩa ajo'oo* (‘The child is crying’)
Morea: Erejoo'o kasi ne! (‘Morea: Stop crying!’)

a. *Kujãtãĩ'ĩa apot akaw* (‘The girl is jumping’)
 Morea: _____

b. *Kujãtãĩ'ĩa oset* (‘The girl is sleeping’)
 Morea: _____

c. *Kunumĩa ujan akaw* (‘The girl is running’)
 Morea: _____

d. *Kunumĩa ojerokya akaw* (‘The child is dancing’)
 Morea: _____

e. *Kunumĩa amaraka'ang akaw* (‘The child is singing’)
 Morea: _____

f. *Kunumĩa imara'ne ajuee* (‘The child is fighting’)
 Morea: _____

EXCEPT 7: Controlled exercise, answer questions based on a context (Chapter about the adverbs *au'jeteramũ* ‘frequently’ and *amumeetee* ‘rarely’).

Morowyky rupi etee angera ngã Pasi, Awakatu, Sirakup, Matari, Morowykya-poi. Imome'u karipy e apo i'wyripewara.

(‘During the week, Pasi, Awakatu, Sirakup and Matari did the activities we report in the chart below. Answer the questions presented below the chart’)

	<i>Kokaru'wi</i> (‘the day before yesterday’)	<i>Karuwamũ</i> (‘yesterday’)	<i>Awamũ</i> (‘today’)	<i>Ai'iwe</i> (‘tomorrow’)	<i>Ikoi'i</i> (‘the day after tomorrow’)	<i>Morowykye'em</i> (‘the day when people don't work’)	<i>Morowypiat</i> (‘the day before the regular day of work’)
<i>Opinaetyka</i> (‘fish’)	Pasi Awakatu	Pasi	Pasi		Pasi	Awakatu	
<i>Akaupa</i> (‘hunt’)	Awakatu	Pasi	Awakatu	Pasi		Awakatu	Awakatu
<i>Koa paw</i> (‘plant’)	Sirakup	Sirakup	Sirakup	Sirakup	Matari		Matari
<i>Tamakari Apaw</i> (‘make baskets’)	Matari	Matari	Pasi	Matari	Pasi	Matari	
<i>Kanawa apaw</i> (‘make benches’)	Awakatu	Sirakup	Awakatu	Sirakup	Awakatu		Awakatu
<i>Yrupemã apaw</i>	Matari	Matari	Matari	Pasi	Pasi		Matari

('make sieves')							
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I'jawe: *Awỹjã te amumeetee yrupemã wopo? Pasi* ('Who rarely makes sieves?' *Pasi*)

- Awỹjã te koa wopo au 'jeteramũ?* ('Who frequently makes benches?')
- Awỹjã te koa wopo amumeetee?* ('Who rarely plants?')
- Awỹjã te apinaetyk amumeetee?* ('Who frequently fishes?')
- Awỹjã te apinaetyk amumeetee?* ('Who rarely fishes?')
- Awỹjã te tamakarea wopo amumeetee?* ('Who rarely makes baskets?')
- Awỹjã te au 'jeteramũ tamakaria wopo?* ('Who frequently makes baskets?')
- Awỹjã te amumeetee kanawaa wopo?* ('Who makes benches every once in a while?')
- Awỹjã te au 'jeteramũ kanawa wopo?* ('Who frequently makes benches?')

EXCEPT 8: Controlled exercise, word puzzle (chapter about compounds and neologisms in Kawaiwete).¹³

Kawaiweteramũ jane amumera mama'e yau reirogi. Esak jane'ea kwara'angawi 'jaw. Emojotyka mama'erera ajuapyt ma'ea ajuee esa'ã ae iapoa a'eupe.

('In the Kawaiwete culture we create words for new objects. For example, we use the word *kwaraanga* 'wi meaning 'watch'. Connect the compound with its function in the community')

Tet ('word')	<i>Iapoap</i> ('meaning')
My'ape'wi ('chest + thin = computer')	<i>Ae'anga eesakap</i> (<i>'it is used to see images'</i>)
<i>Maraka je'eng'i</i> (<i>'music that talks = cellphone'</i>)	<i>Ae pyta mojewaraap</i> (<i>'it is used to pedal'</i>)
<i>Ya rywate</i> (<i>'boat + height = airplane'</i>)	<i>Ae py ryrũ</i> (<i>'footwear'</i>)
<i>Werawerawuu</i> (<i>'television'</i>)	<i>Maraka renupam ka'arana ekwaia morowyky opat</i> (<i>'it is used to write'</i>)
<i>Ypopyĩĩ</i> (<i>'bicycle'</i>)	<i>Ywate ae atap</i> (<i>'it is used to travel'</i>)
<i>Myapaap</i> (<i>'shoes'</i>)	<i>Morerekoemaak wa imomoripyat</i> (<i>'it is used to play'</i>)

¹³ Different strategies are used in the formation of compounds in Kawaiwete (Lima et al. 2012):

Noun + Noun: *Noun (diminutive [DIM]) + verb:*

Kwara-'anga'wi miruru-'i'i-faap

Verb + noun:

Yta-pap

Noun + verb:

Pi'ok

sun-drawing
'watch'

wound-DIM-tie
'patch'

swim-vest
'life guard'

pit-'ok
skin-remove
'to peel'

Loanwords from Portuguese are also observed in the language. Usually, loanwords are adapted to the phonology of Kawaiwete (*trator* 'tractor' (Brazilian Portuguese); *taratu* (Kawaiwete)).

Ajaywywe

('liquid + rubber gatherer = ball')

Ae je'enga monoap

('it is used to communicate')

We also included metalinguistic exercises in which students have to compare sentences and evaluate their difference by thinking about contexts in which they could and could not be used, as shown in Excerpt 5. Working with contexts is a fundamental part of semantic fieldwork (see Matthewson 2004), as it is important to determine the situations in which a sentence can be used, beyond its grammaticality.

EXCEPT 9: Controlled exercise, answer questions (chapter about the suffix *-a* [generic constructions]).

Esak morongytaa jekwasiara a'ere ene ijuawy resaka a'ere ene ikwasiaa eka'ana pype

('See the difference between the sentences and write their difference in your notebook')

I'jawe: a. *Kuima'e 'nga ujān ka'i rewiri.* ('The man ran after the monkey')
a'. *Kuima'ea ujān ka'i rewiri.* ('Men run after monkeys')

Ajuawy ae je'enga esak ijekwasiara. 'Nga nipo a'eramũ majepeja 'nga upe te ea' i. Kuima'ea e'i nipo ae a'eramũ kuima'ea jujue

(Answer: 'Some words are different, see the difference in the sentences. When we say *kuima'e* 'nga we are talking about a particular person. When we say *kuima'ea*, we are talking generically about all men')

b. *Ajuka kuima'e kĩa ka'ia erua.* ('The man killed a monkey')

b'. *Ajuka kuima'ea ka'ia erua.* ('Men kill monkeys')

c. *A'ere kujā ē eya i'waw.* ('The woman baked (something) for eating')

c'. *A'ere kujāa eya i'waw.* ('Women bake for eating')

d. *A'eramũ kujā kynā ajetee futat i'waw.* ('The woman ate by herself')

d'. *A'eramũ kujāa ajetee futat i'waw.* ('Women eat by themselves')

e. *Kunumĩ 'nga ujān* ('The boy runs')

e'. *Kunumĩa ujān* ('Boys run')

f. *Miaruu 'nga y'wa a'u* ('The paca ate the fruit')

f'. *Miaruua i'wa a'u* ('Pacas eat fruits')

g. *Miaruu ēwayra amaka'mu* ('The paca feeds its kittens')

g'. *Miaruua wayra amaka'mu* ('Pacas feed their kittens')

As previously mentioned, one of the main goals of the Kawaiwete pedagogical grammar was to motivate the students to reflect on their language. The place where this is more explicit in the chapters is in the formulation of the open-ended exercises where we try to encourage students to go deeper and do small research projects to further explore the target morpheme/structure being examined in the grammar. This process

followed the methodology of the activities used by the author in the Xinguanian communities (as previously described in Section 1) as a visiting professor of linguistics at the Indigenous undergraduate program at the Mato Grosso State University (UNEMAT) and during workshops at the State University of Roraima (UERR).

In the linguistics classes at UNEMAT, Indigenous students had to build paradigms based on data from their own language and formulate hypotheses about the word order type of the language, following the universals proposed by Greenberg (1963). At UERR, different types of exercise were proposed: the Indigenous teachers used a questionnaire about the count/mass distinction and students had to make generalizations and hypotheses based on the data they organized during this activity. A few other examples of the open-ended exercises are presented in Excerpts 10-17.

EXCERPT 10: Open-ended exercise (chapter on compounds and neologisms in Kawaiwete).

Pe mome'ukat jare pytuna upe, mama'e rera ajuapy ma'ea a'ere imome'waw ajemu'e ma'e 'ngã nupe

('Search in the community for other words that are formed by combining other words. Present the meaning of these words to the class')

EXCERPT 11: Open-ended exercise (chapter about the suffix *-a* [generic constructions]).

Emongyta iyman ma'e 'ngã amũ, a'ere imome'waw kaa 'ngã nupe, ma'ja te aka'jam ja'wyja'wy, wyra, ka'a pe wara mama'e, y'waa aka'jam ja'wy ja'wy ma'e mama'ea. Irũpawẽpawẽ ikwasiaa

('Interview the elders and ask what kinds of animals, natural resources and fruits are disappearing from the community. Write eight sentences')

EXCERPT 12: Open-ended exercise (chapter about the nominalizer suffix *-t*).

Ekwasiat irupãwẽpãwẽ amũ tera morowykyare jane pype Kawaiwete ramũ a'ere ene imome'wau 'ngã porowykya ikwasiaa eka'arana pype

('List eight activities we have in the Kawaiwete community (professions) and describe what people do')

EXCERPT 13: Open-ended exercise (chapter about the prepositions *wi* 'from' and *te* 'to').

Aparanup Kawaiwete ruawera re, amũ aymãna upe, Xingu pe Kawaiwete ruawet. A'ere ene ikwasiaa anga tera pa'rua pe te wi 'jaw

('Interview the elders and ask them to tell you the story of the transfer of the Kawaiwete to the Xingu. Use in your text the words *pe* and *wi*')

EXCERPT 14: Open-ended exercise (chapter about the causativizer *-mu*).

Tera apaw irũpãwẽpãwẽ (8) Mu emome'u 'ara ijapy'rua re kwara rupi

('Using 8 words with *-mu*, talk about the changes of time throughout the year')

EXCERPT 15: Open-ended exercise (chapter about negation).

*Eje'wyripe mama'ea ta'yryrũ remi'u e'emare eparanup nga nupe. Esã'a
ytykure'emã, i'u e'emã, tesĩrumera*

(‘Research in your community what a pregnant woman cannot do during gestation
[for example, what she cannot eat, what she cannot drink, etc.]’)

While some of the open-ended exercises have a purely linguistic flavor (10), most value traditional knowledge, encouraging the students to research one particular aspect of their culture or history. For example, the students could research traditional local professions (12), the migration of the Kawaiwete from their traditional land to Xingu (13), or traditional knowledge about pregnancy care (15). Some of the exercises motivate students to explore other disciplines, such as environmental studies (extinction of some local fauna and flora (11), climate changes throughout the year (14), among other subjects). The *Kawaiwete Indigenous School Political Pedagogical Project*¹⁴ encourages a meaningful connection between local schools, community and traditional knowledge. As such, language classes can be a path for connecting the students with their traditional knowledge and motivate them to become researchers of their language and culture. We believe that the pedagogical grammar can contribute to this goal.

4. FINAL CONSIDERATIONS. This paper described how language documentation projects can impact L1 language teaching. We first described the activities developed under the ProDocLin Kawaiwete, a collaborative project that involved training Indigenous researchers, writing educational materials and providing linguistic workshops. One particular goal of this project was to provide the tools for Indigenous researchers to develop language documentation for their own language and to be able to carry on discussions about linguistic datasets with their students in their classrooms. In the linguistic training of teachers and Indigenous researchers, we emphasized not only the technical aspects of language documentation (how to make recordings, metadata, and transcriptions), but also linguistic theory and methodology for linguistic analysis (how to work with minimal pairs, paradigms, context elicitation, and grammaticality judgments). The documentation of the Kawaiwete language and the training of Indigenous teachers in linguistic methods were fundamental steps for writing the pedagogical grammar.

The work that preceded the writing of the pedagogical grammar of the Kawaiwete language included linguistic workshops and the development of a descriptive grammar and other materials (dictionary, cultural workshops, and reading books). The pedagogical grammar was intended to be an organic educational resource in the Kawaiwete communities, connected with other disciplines that value traditional knowledge, as exemplified by the exercises included in the grammar. We do not have information of the use of the grammar in schools. The grammar is not yet published and only a few hardcopies are available in Xingu. After the publication of the material and its distribution across different Kawaiwete communities, we intend to document the impact of this material in the local education of Kawaiwete children and teenagers. We expect that

¹⁴ The Kawaiwete Indigenous School Political Pedagogical Project is a document written in 2009 by the collective Kawaiwete in a series of workshops organized by the Socioambiental Institute (ISA). This document details what the Kawaiwete people consider as the traditional knowledge that needs to be taught and when the members of the community need to be exposed to each type of knowledge.

material based on communicative contexts rather than on technical terminology¹⁵ is likely to make a relevant contribution to education in local communities. Another goal of the pedagogical grammar of the Kawaiwete language is to encourage Kawaiwete children and teenagers to think about the characteristics of their language by gathering data and building hypotheses about them. We are particularly interested in observing the long-term effects of this type of material in local schools.

A future goal is to adapt the monolingual Kawaiwete pedagogical grammar described in this paper into material that can be used by L2 learners of Kawaiwete (adult Kawaiwete speakers that only speak Portuguese) in the region of Juara, where strategies are being considered for revitalizing the language. Ultimately, with such activities and with the support of Kawaiwete speakers who live in Juara and the Xingu territory, we intend to not only promote the revitalization of the language in the area, but also to encourage speakers of this community to become researchers of their own languages.

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¹⁵ Silva, Amaral & Maia (2014) note that several studies in other languages have already shown that formal grammatical information is not sufficient in language classes.

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